

## WHAT IS CLAIMED IS:

1                    1.     A programmable logic device comprising:  
2                             a plurality of logic array blocks;  
3                             a programmable interconnect bus, programmably coupled to the  
4 plurality of logic array blocks;  
5                             a tristate bus; and  
6                             a plurality of tristate devices, coupled between the plurality of logic  
7 array blocks and the tristate bus, wherein the plurality of tristate devices couple and decouple  
8 the logic array blocks to the tristate bus.

1                    2.     The programmable logic device of claim 1 further comprising:  
2                             a plurality of OE generation circuits, coupled to the plurality of tristate  
3 devices, the plurality of OE generation circuits controlling the plurality of tristate devices.

1                    3.     The programmable logic device of claim 2 wherein a logic array block  
2 programmably couples to drive the plurality of OE generation circuits.

1                    4.     The programmable logic device of claim 1 further comprising:  
2                             a tristate bus driver, coupled between the tristate bus and the  
3 programmable interconnect bus, for driving signals between the tristate bus and  
4 programmable interconnect bus.

1                    5.     A programmable logic device comprising:  
2                             a programmable interconnect bus; and  
3                             a logic array block, comprising:  
4                             a plurality of logic elements configurable to perform logical functions;  
5                             a plurality of tristate drivers, coupled between the plurality of logic  
6 elements and the programmable interconnect bus; and  
7                             tristate control logic controlling states of the plurality of tristate  
8 drivers.

1                    6.     The programmable logic device of claim 5 wherein the plurality of  
2 tristate drivers are programmably enabled to couple the plurality of logic elements to the  
3 programmable interconnect bus.

1                   7.     The programmable logic device of claim 5 wherein the tristate control  
2 logic is programmably coupled to signals on the programmable interconnect bus for  
3 controlling the states of the plurality of tristate drivers.

1                   8.     The programmable logic device of claim 5 wherein one of the plurality  
2 of logic elements is coupled through one of the plurality of tristate drivers through the  
3 programmable interconnect bus to another one of the plurality of logic elements.

1                   9.     A tristate driver for an integrated circuit comprising:  
2                   a data input;  
3                   an enable control node;  
4                   a first driver transistor, coupled between a first potential source and an  
5 output node;  
6                   a second driver transistor, coupled between the output node and a  
7 second potential source;  
8                   a first predriver comprising:  
9                   a first transistor, coupled between the first potential source and a  
10 control electrode of the first driver transistor, having a control electrode coupled to an  
11 inversion of the enable input;  
12                   a second transistor, coupled between the control electrode of the first  
13 electrode driver transistor and control of the second driver transistor, having a control  
14 electrode coupled to the inversion of the enable input; and  
15                   a third transistor, coupled between the control electrode of the second  
16 driver transistor and the second potential source, having a control electrode coupled to the  
17 enable input; and  
18                   a second predriver comprising:  
19                   a first transistor, coupled between the first potential source and the  
20 control electrode of the first driver transistor, having a control electrode coupled to the data  
21 input;  
22                   a second transistor, coupled between the control electrode of the first  
23 driver transistor and the control electrode of the second driver transistor, having a control  
24 electrode coupled to the enable input; and

25 a third transistor, coupled between the control electrode of the second  
26 driver transistor and the second potential source, having a control electrode coupled to the  
27 data input.

- 1 10. The tristate driver of claim 9 further comprising:  
2 an enable control, generating an output signal at the enable control  
3 node for programmably enabling and programmably disabling the tristate driver.